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*Response***Remarks**

Reconsideration of pending Claims 1-25, 27-71, 73-75, 77-79, and 139-148 is respectfully requested.

Claims 1, 15, 18, 27-28, 31, 42, 49, 51-52, 54-55, 60-62, 77, 139-143, and 146-148 have been amended.

Claims 26, 72, and 76 have been canceled.

No new matter has been added with the amendments, which are intended to merely clarify language used in the claims and the subject matter claimed. The scope of the claims is intended to be the same after the amendment as it was before the amendment.

Objections to the Claims

The Examiner objected to Claims 76, 77, 144, and 145 under 37 CFR § 1.75(c) based on improper dependent form.

Claim 76 has been canceled, and Claim 77 has been amended to recite "the *residual metal particles*".

Claim 143 recites "the residual particles comprising *at least one of* metal particles and abrasive particles..." Claim 144 further limits Claim 143 to residual *metal* particles and the recited group of residual metal particles. Claim 145 further limits Claim 143 to residual *abrasive* particles and the recited group of residual abrasive particles.

Applicant submits that Claims 77 and 144-145 are in proper dependent form, and withdrawal of this objection is respectfully requested.

Rejection of Claims under 35 U.S.C. 102(b) (El-Nokaly)

The Examiner rejected Claims 1-5, 7, 9, 10, 18-20, 22-24, 28, 30-35, 37, 62, 66, 70, 71, 76, 77, 139, and 141-144 under Section 102(b) as anticipated by USP 5,599,555 (El-Nokaly). This rejection is respectfully traversed.

The Examiner cites El-Nokaly as teaching an intermediate composition of citric acid, potassium sorbate, and water – which contains the same ingredients and proportions as the composition claimed by Applicant.

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The cited "intermediate composition" is in Example III (col. 16, lines 37-55):

EXAMPLE III
Preparation of Fat Substitute With Encapsulated Preservatives

<u>Ingredient</u>	<u>Amount (% By Weight)</u>
Klucel E	15
citric acid	6
water	9
<u>shortening</u>	<u>70</u>

The fibers are added to the citric acid, potassium sorbate and water under high shear. When the liquid crystals are formed, the shortening is added and mixed until homogeneous. This shortening substitute is stable to bacterial growth.

El-Nokaly does not teach or suggest a composition as claimed having a pH of about 4.5-6.5. Nor does El-Nokaly teach or suggest the *effective amounts* of a cleaning agent, antimicrobial agent, and solvent, as recited in the claims.

The Examiner cites to El-Nokaly's disclosure at col. 15, lines 6-10, regarding preservatives as a component of an aqueous phase, which states:

Another important component of the aqueous phase are the preservatives, for example, citric acid, potassium sorbate and sodium benzoate. The preservatives are added *in amounts effective to prevent oxidation, bacterial and mold growth*.

First of all, the above statement regarding preservatives is made in the context of *margarine/butter* – discussed by El-Nokaly beginning at col. 14, line 30. There, El-Nokaly notes that *conventional margarine* comprises an "aqueous phase" that usually contains milk or milk solids – and that preservatives are an important component of "the aqueous phase." See at col. 14, line 30 to col. 15, line 10 (emphasis added):

Margarine/Butter

...

Typically, *conventional margarine* comprises up to about 20% of *an aqueous phase* and...a fat phase...

The aqueous phase usually contains milk or milk solids...

Other ingredients included within the aqueous phase are flavorants...

Another important component *of the aqueous phase* are the *preservatives*, for example, citric acid, potassium sorbate and sodium benzoate. The preservatives are added in amounts *effective to prevent oxidation, bacterial and mold growth*.

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This does not teach or suggest effective amounts of a cleaning agent, antimicrobial agent, and solvent for removal/dispersal of residual particles from a substrate, as claimed by Applicant (e.g., Claims 1, 31, 62, 141-143, 146-148).

Nor does El-Nokaly teach or suggest the recited ingredient amounts for a cleaning agent, antimicrobial agent, and solvent (e.g., Claims 42, 51-54, 60). El-Nokaly does not teach any amount of ingredients in the "intermediate composition" – *only in the final product*, which also includes 15 % *by wt* hydroxypropyl cellulose polymer (KLUCEL) and 70% *by wt* shortening. And El-Nokaly does not teach *any* amount for potassium sorbate.

El-Nokaly does not teach or suggest Applicant's compositions as claimed. Accordingly, withdrawal of this rejection is respectfully requested.

Rejection of Claims under 35 U.S.C. 102(b) (Johnson)

The Examiner rejected Claims 1-7, 9, 10, 17-20, 22-24, 26-28, 30-37, 42-46, 50-60, 62-66, 70, 71, 76, 77, and 141-144 under Section 102(b) as anticipated by USP 4,772,501 (Johnson). This rejection is respectfully traversed.

The Examiner cites Johnson as teaching a liquid preservative composition of a mixture of citric acid and sorbic acid as preservatives, and water, in the same proportions as the composition claimed by Applicant.

Johnson teaches a wet wiper preservation system of citric acid and sorbic acid. Johnson specifically states that the composition has a pH of *less than 3.5*. See at col. 4, lines 8-11 (emphasis added):

The pH of the liquid preservative composition is preferably *below about 3.5*. More preferably, the liquid preservative composition has a pH in the range of about 2.8 to about 3.0...

Johnson does not teach or suggest a composition having a pH of about 4.5-6.5, as claimed by Applicant.

Johnson does not teach or suggest Applicant's compositions as claimed. Accordingly, withdrawal of this rejection is respectfully requested.

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*Response***Rejection of Claims under 35 U.S.C. § 103(a) (Pregozen)**

The Examiner rejected Claims 1-7, 9, 15, 18-20, 22-24, 26-35, 37, 42-47, 49, 50, 55-66, 70-72, 76, 77, 139-144, 146, and 148 under Section 103(a) as obvious over USP 5,141,803 (Pregozen). This rejection is respectfully traversed.

The Examiner admits that Pregozen includes 0.03% by wt biocide – which is excluded from the claims. However, the Examiner maintains that the inclusion of a biocide in Pregozen *only enhances* the antimicrobial action of potassium sorbate as an antimicrobial agent, and it would be obvious to combine the two compounds.

In response to Applicant's earlier-submitted arguments, the Examiner stated as follows (Office Action at page 9; emphasis added):

...the addition of a 0.03 % wt of a biocide will NOT change materially the composition, since the biocide has the same function as the antimicrobial agent (by virtue of its definition and nature), and therefore, it is *prima facie* obvious to combine the two compositions....

The Examiner has ignored the teachings of Pregozen with regard to the addition of a cationic biocide – which is *two specific cationic biocides* — polyhexamethylene biguanide hydrochloride and poly(oxyethylene(dimethyliminio) ethylene(dimethyliminio)ethylene dichloride). According to Pregozen's disclosure, the cationic biocides do not provide the same effect— and are materially different from an antimicrobial agent.

Pregozen particularly addresses prior art compositions of ethyl alcohol, sorbic acid, and citric acid – stating that the combination of *only sorbic acid and citric acid does not* provide adequate anti-microbial protection. See at col. 1, lines 56-61 (emphasis added):

...However, a problem arises in eliminating ethyl alcohol from sorbic acid - citric acid - ethyl alcohol preservative systems for nonwoven wipes in that *the combination containing only sorbic acid and citric acid does not always provide adequate protection against microbial contamination and deterioration*.

Pregozen then describes the invention as a preservation system composed of potassium sorbate, disodium ETDA, *two specific cationic biocides*, and citric acid (as a pH adjuster). As stated, the preservative system is *specifically adapted* to prevent microbial deterioration of wet wipe. See at col. 3, linc 39 et seq. (emphasis added):

The aqueous composition of the invention is employed as an impregnant for flexible absorbent nonwoven fabrics in the manufacture of moist wipes useful for cleaning and/or delivering active agents to animate or inanimate surfaces. The aqueous composition is

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comprised of water having dissolved therein a preservative system specifically adapted to prevent microbial deterioration of the moist wipe, which is readily susceptible to microbial deterioration in the absence of a suitable preservative. The preservative system is comprised of potassium sorbate, disodium ethylenediaminetetraacetate (disodium EDTA), a cationic biocide selected from two specific agents described more fully hereinbelow and citric acid.

The potassium sorbate...antimicrobial effect...

The disodium ethylenediaminetetraacetate enhances the effect of the preservative system...

The cationic biocide is selected from polyhexamethylene biguanide hydrochloride and poly[oxyethylene(dimethyliminio)ethylene(dimethyliminio)ethylene dichloride]. Polyhexamethylene biguanide hydrochloride is a known biocide with a wide spectrum of antimicrobial activity ...Poly[oxyethylene(dimethyliminio)ethylene(dimethyliminio)ethylene dichloride] is a known broad spectrum microbiocide...The cationic biocides are employed at a concentration of from about 0.03 to about 0.24 percent by weight (*active basis*) of the aqueous composition.

...Citric acid is employed in the aqueous composition as a pH adjuster....

It is clear from Pegozen's teachings the two cationic biocides are *essential elements* and *material* to Pegozen's preservation system – which, as described, is specifically formulated to prevent microbial deterioration of a wet wipe. The exclusion of this element would *materially change* Pegozen's composition.

In the Office Action at page 6, lines 13-17, the Examiner characterized Pegozen's addition of biocide to potassium sorbate as obvious. The Examiner stated as follows (emphasis added):

...Therefore, the addition of biocide in Pegozen will only enhance the antimicrobial action of potassium sorbate as an antimicrobial gent [sic], and therefore, such combination would have been obvious to those skilled in the art, since [it] is prima facie obvious to combine two compounds each of which is taught in the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose...

The Examiner appears to question the patentability of Pegozen's invention and validity of the issued claims. The U.S. Patent and Trademark Office issued the claims to Pegozen's moistened wipe impregnated with the described composition, and it is presumed that the claims satisfied the requirements of Sections 102/103. The Examiner's statement is clearly misplaced and without basis.

Furthermore, the Examiner is ignoring the teachings of Pegozen that the cationic biocides are material to the described preservation system.

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Pregozen does not teach or suggest Applicant's compositions as claimed. Accordingly, withdrawal of the Examiner's rejection is respectfully requested.

Rejection of Claims under 35 U.S.C. 103(a) (Pregozen with Small)

The Examiner rejected Claims 16, 17, 51-54, and 147 under Section 103(a) as obvious over Pregozen in view of USP 6,156,661 (Small). This rejection is respectfully traversed.

The Examiner maintains that it would be obvious to utilize the buffering agent (quaternary amine, ammonium hydroxide) or another antimicrobial agent such as benzoate in Pregozen's composition based on Small's disclosure.

Small discloses an aqueous solution for removing chemical residues from metal or dielectric surfaces containing an organic acid and a buffering amount of a base (caustic component) to adjust the pH between 3.5 to 7.

First of all, even if, *arguendo*, one would make the proposed modification of Pregozen's composition to include either a buffering agent or another antimicrobial agent, it would not provide Applicant's composition as claimed. The added disclosure of Small does not cure the above-stated deficiencies of Pregozen in teaching or suggesting Applicant's composition.

Furthermore, there is no motivation to combine a base into Pregozen's composition for a buffering effect. Pregozen discloses an acidic solution having a pH 3.5 to 4.5, and particularly teaches using *citric acid* to adjust the pH of the solution. See at col. 4, lines 13-26, and col. 5, lines 24-35 (emphasis added):

The pH of the aqueous composition should be in the range of from about 3.5 to about 4.5 and preferably from about 4.0 to about 4.3. As disclosed hereinbefore, the antimicrobial activity derived from the use of potassium sorbate is due primarily to undissociated sorbic acid which is formed *in situ* in the pH range of 3.5 to 4.5. *Citric acid is employed in the aqueous composition as a pH adjuster in an amount that ensures that the pH of the aqueous composition will fall in the range of from about 3.5 to about 4.5. A pH in this range can be obtained when citric acid is employed at a concentration of from about 0.05 to about 0.20 percent by weight of the aqueous composition.*

...
All optional ingredients, except the plant extracts, to be included in the composition are combined and mixed until a clear mixture is obtained... *Citric acid is then added to the stirred batch in an amount sufficient to adjust the pH to 3.5 to 4.5...*

The clear teaching of Pregozen of *citric acid* as a *pH adjuster* essentially teaches away from the use of a base in Pregozen's composition.

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Pregozen, either alone or combined with Small, does not teach or suggest Applicant's compositions as claimed. Accordingly, withdrawal of the Examiner's rejection is respectfully requested.

Extension of Term. The proceedings herein are for a patent application and the provisions of 37 CFR § 1.136 apply. Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that Applicant has inadvertently overlooked the need for a petition for extension of time.

Applicant believes that the claims are in condition for allowance, and notification to that effect is respectfully requested.

Respectfully submitted,

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Dated: February 17, 2006

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